

## Claims

1. A method for producing a honeycomb structure including a step of plugging up a plurality of cells at either  
5 of end faces of a honeycomb formed body having two end faces and a plurality of cells passing from one end face to another end face, characterized in that the step of plugging up the cells includes a first substep of adhering a film to either of the end faces, a second substep of boring holes through the film  
10 at specified positions corresponding to the cells to be plugged up by a high-density energy beam and a third substep of packing a plugging material in the cells to be plugged up, and the film used at the first substep comprises a substrate layer and an adhesive layer and has an adhesive force of 3-15 N/25 mm.
- 15 2. A method for producing a honeycomb structure according to claim 1 which includes a forming step of forming the honeycomb formed body and a firing step of firing the formed body plugged at the plugging-up step.
- 20 3. A method for producing a honeycomb structure according to claim 1 or 2, wherein the thickness of the film is 10-70  $\mu\text{m}$ .
4. A method for producing a honeycomb structure according to any one of claims 1-3, wherein the thickness of the substrate layer is 5-40  $\mu\text{m}$ .
- 25 5. A method for producing a honeycomb structure according to any one of claims 1-4, wherein the thickness of the adhesive layer is 5-40  $\mu\text{m}$ .
6. A method for producing a honeycomb structure

according to any one of claims 1-5, wherein the substrate layer is mainly composed of a polyester or a polyolefin.

7. A method for producing a honeycomb structure according to any one of claims 1-6, wherein the adhesive layer  
5 is mainly composed of an acrylic adhesive material.